

REMARKS

In the Office Action the Examiner noted that claims 1-44 are pending in the application, and the Examiner rejected all claims. The Examiner's rejections are traversed below, and reconsideration of all rejected claims is respectfully requested.

Claims 21-23 are amended to correct a typographical error and these amendments do not change the scope of these claims.

Rejection of Claims Under 35 USC §103

In items 2-3 on pages 2-4 of the Office Action, the Examiner rejected claims 1-4, 9-12, 15-17, 20, 24-29, 33, 34, 42 and 44 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,567,217 issued to Kowarz et al. (hereinafter referred to as "Kowarz"). This rejection is respectfully traversed.

Kowarz does not disclose, teach or suggest at least "a light separation/integration device including a diffraction device which is provided on at least one incident side of the light separation/integration device, wherein the diffraction device diffracts the light to adjust an incident angle thereof to a predetermined range."

The Office Action asserts that Kowarz's color combining cube 100 (X-cube) anticipates the "light separation/integration device" as recited in claim 1, and that Kowarz's fine modulator array 18 anticipates the "diffraction device" as recited in claim 1.

However, Kowarz only discloses a fine modulator array 18 as part of an optical subsystem 60 delivering light to the combining cube 100 (Fig. 8). Kowarz does not disclose, teach or suggest the "diffraction device which is provided on at least one incident side of the light/separation device," as recited in claim 1 and as shown in the exemplary embodiments of Figures 2 and 5, referenced only as an example and not limiting of the presently claimed invention.

Moreover, because Kowarz's fine modulator array 18 is so far removed from Kowarz's color combining cube 100, Kowarz's fine modulator array 18 is not the "diffraction device which is provided on at least one incident side of the light separation/integration device," as recited in claim 1. Therefore, for at least these reasons, it is respectfully submitted that claim 1 patentably distinguishes over the cited references.

Further, the "light separation/integration device" as recited in claim 1 is a diffraction optical element, with a diffraction device provided on at least one incident side, such as but not

limited to a diffraction optical element (DOE) or a holographic optical element (HOE) on the surface of which predetermined pitch patterns are formed. In contrast, the grating structure in Kowarz is an electromechanical grating device which needs to be electromechanically actuated by a controller. Because a light separation/integration device of the present invention would not need a controller (e.g. Kowarz's controller 20), as it is not necessary for the claimed diffracting. See claims 3 and 4 as further examples. Therefore, for at least these reasons, it is respectfully submitted that claim 1 patentably distinguishes over the cited reference.

Claims 2-4, 9-12, 33, 34, and 44 depend directly or indirectly from claim 1 and include all of the features of that claim plus additional features which are not taught or suggested by the cited reference. Therefore, it is respectfully submitted that claims 2-4, 9-12, 33, 34, and 44 also patentably distinguish over the cited reference.

Similarly, Kowarz does not disclose, teach or suggest at least "a light separation/integration device which includes a diffraction device provided on at least one incident side thereof, wherein the diffraction device diffracts the light to adjust an incident angle thereof to a predetermined range," as recited in claim 15. Therefore, for at least the above reasons, it is respectfully submitted that claim 15 also patentably distinguishes over the cited references.

Claims 16-17, 20, and 24-29 depend directly or indirectly from claim 15 and include all of the features of that claim plus additional features which are not taught or suggested by the cited reference. Therefore, it is respectfully submitted that claims 16-17, 20, and 24-29 also patentably distinguish over the cited reference.

Also similarly, Kowarz does not disclose, teach or suggest at least "a light separation/integration device including diffraction devices which are provided on incident sides of the light separation/integration device corresponding to the lights, wherein each of the diffraction devices diffracts the corresponding light to adjust an incident angle thereof to a predetermined range," as recited in claim 42. Therefore, for at least the above reasons, it is respectfully submitted that claim 42 also patentably distinguishes over the cited references.

In items 4-5 on pages 4-6 of the Office Action, the Examiner rejected claims 5-8 and 18-19 under 35 U.S.C. §103(a) as being unpatentable over Kowarz, in view of U.S. Patent Application Publication 2003/0025842 to Saccomanno (hereinafter referred to as "Saccomanno"). This rejection is respectfully traversed.

Claims 5-8 depend directly or indirectly from claim 1 and include all of the features of that

claim plus additional features which are not taught or suggested by the cited references.

Therefore, it is respectfully submitted that claims 5-8 also patentably distinguish over the cited references.

Claims 18-19 depend directly or indirectly from claim 15 and include all of the features of that claim plus additional features which are not taught or suggested by the cited references. Therefore, it is respectfully submitted that claims 18-19 also patentably distinguish over the cited references.

In item 6 on page 6 of the Office Action, the Examiner rejected claims 30, 40 and 41 under 35 U.S.C. §103(a) as being unpatentable over Kowarz, in view of Saccomanno, and further in view of U.S. Patent 6,512,502 issued to Ho et al. (hereinafter referred to as "Ho"). This rejection is respectfully traversed.

Claims 30, 40 and 41 depend indirectly from claim 15 and include all of the features of that claim plus additional features which are not taught or suggested by the cited references. Therefore, it is respectfully submitted that claims 30, 40 and 41 also patentably distinguish over the cited references.

In item 7 on page 7 of the Office Action, the Examiner rejected claims 13, 14 and 31 under 35 U.S.C. §103(a) as being unpatentable over Kowarz in view of Ho. This rejection is respectfully traversed.

Claims 13 and 14 depend indirectly from claim 1 and include all of the features of that claim plus additional features which are not taught or suggested by the cited references. Therefore, it is respectfully submitted that claims 13 and 14 also patentably distinguish over the cited references.

Claim 31 depends indirectly from claim 15 and includes all of the features of that claim plus additional features which are not taught or suggested by the cited references. Therefore, it is respectfully submitted that claim 31 also patentably distinguishes over the cited references.

In item 8 on pages 7-8 of the Office Action, the Examiner rejected claims 32, 36-39 and 43 under 35 U.S.C. §103(a) as being unpatentable over Kowarz. This rejection is respectfully traversed.

Claims 32 and 36 depend directly or indirectly from claim 1 and include all of the features of that claim plus additional features which are not taught or suggested by the cited references. Therefore, it is respectfully submitted that claims 32 and 36 also patentably distinguish over the cited references.

Claims 37-39 depend directly from claim 15 and include all of the features of that claim plus additional features which are not taught or suggested by the cited references. Therefore, it is respectfully submitted that claims 37-39 also patentably distinguish over the cited references.

Summary

Claims 1-44 are pending and under consideration. It is respectfully submitted that none of the references taken alone or in combination disclose the present claimed invention. There being no further outstanding objections or rejections, it is respectfully submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

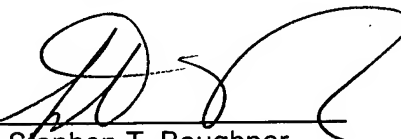
Respectfully submitted,

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12/29/04

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